

Biomolecules Web Quest

Answer all the questions in your journal or draw pictures when appropriate. Be sure to scroll down the website pages in order to see all the information, animations or videos.

1. What are the six most abundant element of life?
2. Explain the difference between an element, atom, molecule and compound.

3. Carbohydrates

Go to the following websites and watch the animations about carbohydrates.

Biomolecules- the Carbohydrates http://www.wisc-online.com/objects/index_tj.asp?objid=AP13104

Animation - Carbohydrate Digestion <http://www.mydr.com.au/default.asp?article=3995>

- A. Describe the basic molecular structures and primary functions of carbohydrates.
- B. Describe step by step how your body breaks down carbohydrates. Make sure to specify the function of each organ.

4. Proteins

Go to the following websites and watch the animations about proteins.

<http://www.wisc-online.com/Objects/ViewObject.aspx?ID=ap13304>

<http://www.wisc-online.com/Search.aspx?search=proteins>

- A. Describe the basic molecular structures and primary functions of proteins.
- B. Describe how proteins are made in detail. Sketch a picture on your journal page.

5. Nucleic Acids

http://www.chem4kids.com/files/bio_nucleicacids.html

- A. Describe the basic molecular structures and primary functions of nucleic acids.

6. Lipids

<http://www.wisc-online.com/objects/ViewObject.aspx?ID=AP13204>

Watch the tutorial titled the Digestion and Absorption of Fats

<http://bcs.whfreeman.com/thelifewire/content/chp50/5002001.html>

- A. Describe the basic molecular structures and primary functions of lipids.
- B. How is fat digested? How is this different from carbohydrates?

Go to the following website and Read about Heart Attacks. Scroll to the bottom of the page and watch the video. **What are the odds? Heart Attack** <http://health.howstuffworks.com/diseases-conditions/cardiovascular/heart/when-do-heart-attacks-occur.htm>

- C. Explain how heart attacks occur?

7. Go to the following website and read the information

<http://www.richardanderson.me.uk/keystage4/GCSEChemistry/m3ratesofreaction.php#top>

- A. Explain how heat affects the rate of reaction.
- B. Explain how surface area affects the rate of reaction.
- C. Explain how concentration affects the rate of reaction.
- D. What is a catalyst and how does a catalyst work?

8. Go to Power Point titled: Chapter 2.The Chemistry of Life. Organic Molecules (In FC)

- A. Explain the difference between hydrolysis and dehydration.
- B. Which molecules undergo these reactions?